

**STATEMENT OF WORK**  
**FOR**  
**MINIATURE DAY/NIGHT SIGHT (MDNS) DEVELOPMENT**  
**24 March 2003**

1.0 SCOPE. This Statement of Work (SOW) sets forth the requirements for the Miniature Day/Night Sight (MDNS) Development for the Special Operations Peculiar Modification (SOPMOD) Program. MDNS Development includes the development of new items or the adaptation of NDI/COTS items that provide miniaturized day and night aiming capabilities to SOF operators. MDNS sub-systems, when mounted on small arms, will allow the SOF operator to acquire, identify, and accurately fire on enemy targets in combat. A secondary mission of these MDNS systems is to provide target observation, illumination, and marking. The developments and improvements required are based on current aiming devices in the SOF inventory. The acquisition will allow for award of one or more IDIQ contracts for each of the following MDNS elements (to include production units, warranty and data): Enhanced Combat Optical Sight (ECOS-C); Miniature Night Vision Sight (MNVS II); Clip-On Night Vision Device (CNVD); Backup Iron Sight (BIS II); Rail Interface System (RIS II); Visible Bright Light (VBL III); Carbine Visible Laser (CVL II); and Infrared Pointing, Illuminating, and Aiming Laser (ITPIAL II); and potential integrated systems. Contracts may be awarded for all eight (8) of the MDNS elements as well as contracts for integrated systems.

1.1 Background. Special Operations Forces (SOF) operates around the world in extreme conditions including underwater, surf-zone, desert, arctic, jungle, and urban environments. They subject their weapons and aiming accessories to extremely high usage rates and stresses. Due to the manner in which SOF utilizes its aiming accessories, current SOPMOD accessories are not effective enough to support optimized SOF use. Although the currently fielded aiming devices meet previous performance and design specifications, these devices have exhibited performance characteristics that do not meet SOF requirements when subjected to the extreme operational conditions imposed upon them by SOF operators.

## **2. APPLICABLE DOCUMENTS**

### **2.1 Reference MDNS Performance Specification**

### 3.0 REQUIREMENTS.

**3.1 General.** The contractor shall develop Miniature Day/Night Sight subsystems and provide production hardware in accordance with the contract CLINs, CDRL items, and the requirements contained in the Performance Specification referenced in paragraph 2.1.

### 3.2 DT/OT TEST PROTOTYPES

**3.2.1** Delivery Orders for Developmental Testing shall consist of 5 DT prototypes iaw the MDNS Performance Specification. Delivery Orders for Operational Testing shall consist of 10 OT Test Prototypes.

**3.2.2 Post Award Conference.** The Government shall host a one day Post Award Conference within 30 working days after contract award. A copyright release letter shall be provided to authorize the Government unconditional rights to reproduce and use the submitted contract information for official Government business use. An exact date for the post-award conference shall be mutually agreed upon at contract signing.

**3.2.3 Environmental and HAZMAT.** The Contractor shall have an established Environmental and HAZMAT program to ensure the system design, development, testing evaluation, operations, and maintenance comply with federal, state, and local environmental laws, regulations, shipping regulations, policies, treaties, and agreements. The Contractor shall perform a comprehensive Environmental, Safety, and Health (ESH) analyses and provide an Environmental, Safety, and Health Plan addressing Environmental Safety Hazards, Support requirements associated with using hazardous materials, and Cost effective pollution prevention programs. The Contractor shall ensure the Environmental and Hazard analysis complies with DOD Dir 500.2-R, paragraph 4.3.7. The Contractor shall identify any non-metallic materials contained in MDNS hardware. (CDRL A001).

**3.2.4 Operator's Manual.** The Contractor shall provide a Commercial Off-the-Shelf (COTS) Operator's Manual IAW the Technical Manual Contract Requirements (TMCR) and the MDNS Performance Specification. The Government will perform a verification of the commercial manuals using the TMCR. The Operator's Manual shall be no larger than 4 ½ X 6 inches.

The Contractor shall provide Operator manuals with each delivered hardware. An Operator's Manual start of work meeting shall be held concurrent with the post award conference to ensure all requirements are reviewed and agreed upon. The Operator's Manual shall be provided IAW CDRL A002.

**3.2.4.1 Data Validation.** The Contractor shall have a process in place that provides for the validation of the adequacy and technical accuracy of the Technical Manual. The Government will verify and approve the accuracy and completeness of the Technical Manual provided by the Contractor. Any discrepancies shall be corrected by the Contractor at no additional expense to the Government.

**3.2.5 Proposed Spare Parts List for Spares Acquisition Integrated with Production (SAIP).** The Contractor shall employ the concept of concurrent release of spare orders with identical parts as installments on the production unit. The Contractor shall provide a complete proposed spare parts listing of all the parts that identifies MDNS hardware, which can be removed and replaced at the O-Level and repaired at the OEM (CLS) IAW CDRL A003. The Contractor shall identify which Proposed Spare Parts are repairable at O-level and which are repairable at D-level. The Proposed Spare Parts list shall be delivered in a top-down breakdown format of the MDNS item and shall include repairable, replacement parts (consumables) and long lead time items. Each Spare Parts List shall contain the part number, nomenclature, CAGE, Quantity and unit price. The Proposed Spare Parts List shall include the spares based upon failure analysis to support a 12-month sparing philosophy.

### **3.3 PRODUCTION HARDWARE**

**3.3.1 Quality Program.** The Contractor shall establish, implement, document and maintain a quality system that ensures conformance to contractual requirements and meets the requirements of ANSI/ASQC Q9002, or an equivalent quality system model during performance of this contract.

**3.3.2 Quality Conference Inspections and Tests.** The Contractor shall conduct Quality Conformance Inspections and Tests IAW the Contractor's Acceptance Test Plan and Section 4.4 of the Performance Specification. The Government reserves the right to send a representative(s) to witness production acceptance testing. The Contractor shall develop and submit an Acceptance Test Plan for Government review and approval in accordance with (CDRL A004). The Contractor shall provide documented acceptance test with each system upon delivery to the Government. Inspection and acceptance shall be conducted at destination.

**3.3.3 Testing.** The Contractor shall make available for the Government's review, all previous and current test results concerning the performance, reliability, maintainability, availability, environmental conditions and safety of the MDNS subsystems.

**3.3.4 Contractor's Program Management.** The Contractor shall develop and implement an innovative management plan that clearly defines how Program will be managed and controlled. The Contractor shall be responsible for overall system performance and shall define and maintain appropriate subcontract and associate contract relationships to support all necessary requirements, allocations and interface. The Contractor shall designate a single point of contact (POC) specifically charged with the responsibility for accomplishment of the access to the Contractor's facilities throughout the life of the agreement of the SOW. The POC shall be the focal point for all technical communication.

**3.3.5 Monthly Status and Progress Reports.** The Contractor shall submit monthly progress reports identifying detailed work and schedule status of on-going work and cost information on warranty/non-warranty repair activities. (CDRL A005).

**3.3.6 Program Reviews.** The Contractor shall be responsible for attending program reviews as mutually agreed upon with the Government. The Contractor shall convene the following described program reviews at the Contractor's facility. These reviews shall serve as a forum to resolve issues and exchange information in support of testing, production, repair, logistics support and delivery. The Contractor shall ensure that appropriate personnel are available for conferences and reviews to address and resolve agenda items. Program reviews shall commence within 90 days after contract award. Subsequent program reviews shall convene as mutually agreed between the Contractor and the government, but no

more frequently than quarterly. A maximum of four Program reviews will be held per year with three at the Contractor's facility and one at NSWC Crane. The Contractor shall be prepared during all Program Reviews to address the contract performance.

**3.3.7 Integrated Product team (IPT).** Government representatives from the users Command, NSWC Crane and the Contractor, throughout the life of the contract, shall establish an IPT. The IPT will provide the flexibility to adopt improved processes that increase system reliability/availability, improve/insert new technology, increase efficiency and system supportability. The overall objective is to lower total life cycle ownership cost of MDNS hardware. Group size shall be optimized for efficiency in communication and coordination.

**3.3.8 RELIABILITY/MAINTAINABILITY.** The Contractor shall notify the Government of any and all performance related data that would both positively and negatively impact the reliability, maintainability, availability and/or supportability of MDNS hardware. The Government may test, validate, verify and/or certify any and all of the Systems performance parameters to verify compliance with the Performance Specification.

**3.3.9 CONFIGURATION MANAGEMENT (CM).** The Contractor shall have an established, Government verifiable, CM Program with control systems in place for the contract life. The Contractor's CM program shall be under the general guidance of MIL-HDBK-61A and shall provide configuration identification, configuration control, and configuration status accounting of all new and/or modified hardware, firmware, software, and documentation. The Program shall address the Contractor's procedures for CM to include configuration reviews and preparation, review and preparation of requests for Deviations and Waivers and Engineering Changes. The Production Baseline (PBL) shall be established at the time of contract award, which may include minor modifications recommended by the government during user negotiations based on user interoperability to the replaceable parts level. The PBL shall support interchangeability and interoperability to the replaceable part level. All baselines shall be documented in the Contractor's configuration status accounting database.

**3.3.10 Configuration Identification (CI).** The Functional Baseline and Product Baseline shall identify the hardware configuration of the MDNS hardware. The Functional Baseline is defined by the system specification. The Engineering Drawings, Associated Parts List, and Engineering and Logistics Life Cycle Documentation define the PBL.

**3.3.11 Configuration Control (CC).** The hardware PBL shall be controlled by Form, Fit, Function, Interchangeability and Interoperability in consonance with the Government Maintenance Concept of Organizational (O) to Contractor Logistics Support (CLS). The Contractor shall submit for Government approval, all proposed changes that impact the Form, Fit, Function, Interchangeability or Interoperability of the current system configuration on accordance with the Contract Data Requirements Lists.

**3.3.12 Engineering Change Proposal (ECP), Waivers, and Deviations.** The Contractor shall prepare an Engineering Change Proposal (ECP), under the general guidance of MIL-HDBK-61A, for any changes to the approved Functional Baseline and/or Product Baseline. Class I ECPs shall require at a minimum a Revision or Part Number change to MDNS hardware dependent upon system impact to form, fit, function or cost. The Government shall dictate to the Contractor whether a Part Number or Revision to the MDNS hardware is required for Class I ECPs. Any requests for Deviations or Waivers shall be submitted through the Contracting Officer for Government review and approval. Drawing updates for Revisions and/or Part Number changes shall be completed at the Contractor's expense to include all technical documentation required by the Government. The Contractor shall provide ECPs via electronic mail and hard copy for Government review and approval. (CDRLs A006, A007, and A008).

**3.3.13 Non-Class I Changes.** For those changes not affecting form, fit, function (i.e., parts substitution, changes not impacting contract/delivery schedule, or cost, etc.) the Contractor shall document implementation of Class II ECPs with change to revision letter of the part number by the Configuration Status Accounting database outlined in paragraph 3.5.3 for Government record. The Contractor shall provide Class II ECPs to the Government for concurrence of Classification assigned affecting the top-level system drawing. (CDRL A006).

**3.3.14 Configuration Status Accounting (CSA).** A CSA database will be proposed by the Contractor and approved by the Government. All baselines, ECPs, deviations and waivers shall be documented in the Contractor's CSA database. The Government will utilize the Contractor's CSA database as the single tracking system for each configured hardware and software item for MDNS hardware. The Contractor shall provide the Government the CSA database via electronic media. (CDRL A009).

**3.3.15 Contractor Logistics Support (CLS).** The Contractor shall provide Life Cycle Support for MDNS hardware for a period of five (5) years from date of contract award to include repair and spare parts as required on individual delivery order. The Contractor shall provide Original Equipment Manufacturer (OEM) level repairs and service. The Contractor shall repair MDNS hardware not covered under the warranty provisions as directed by the Government on an individual delivery order.

**3.3.16 Warranty.** The Contractor shall provide a standard commercial warranty.

**3.3.17 Non-Warranty Repair.** The Contractor shall receive, inspect, test, and perform failure analysis and/or isolate each MDNS item to determine the specific work required to restore it to a serviceable condition. The Contractor shall repair the unserviceable items that do not exceed the Best Economical Replacement to the latest production or approved configuration. The Contractor shall perform failure analysis and submit a detailed time and material cost proposal within ten calendar days after receipt of the failed MDNS hardware to the Contracting Officer prior to commencement of work for any non-warranty repairs. Cost proposals submitted for work to be performed shall include all cost associated for evaluation and actual repair of the MDNS hardware, itemized listing of parts required for those repairs, and timeframe required for the repair. The Contractor shall not perform any non-warranty repair on the failed MDNS hardware until receipt of the delivery order. Disassembly of the MDNS hardware shall be limited to the minimum extent possible. Repair turn around time shall not exceed 14 calendar days after receipt of delivery order. All failures returned to the OEM for repair will have a Return Material Authorization (RMA) number assigned by the Contractor.

**3.3.18 MAINTENANCE PLANNING.** THE MDNS hardware shall be maintained under a two level concept, Organizational (O) and Contractor Logistic Support (CLS) for above O-level repair. O-level will operate and repair the system by using a "remove and replace" concept for repair of minor items such as replacing knobs, examining the unit for any physical damage, replacing the batteries, and cleaning the unit as needed (i.e. rinsing it to remove sea water/mud, and cleaning the lenses). A designated Government facility will perform failure analysis screening of failed Systems prior to returning to the OEM for repair. CLS will consist of any tasks required to repair any failure of MDNS hardware beyond the O-level. The Contractor shall provide CLS level of support while the Government will provide O-level support. The Government performing O-level support does not nullify any existing warranty on MDNS hardware.

**3.3.19 Packaging, Handling, Storage and Transportation.** The Contractor shall ensure that when the hardware is packaged, it is capable of being transported on standard transportation system, commercial or military. The Contractor shall also ensure when the hardware is in its shipping container, it shall withstand, without physical damage or degradation of performance, transportation modes of commercial air, truck, and all types of Army/Navy cargo or combat vehicles as well as Naval fast Boats and Submersible Diving Vehicles (SDVs). Labeling and marking requirements shall be IAW MIL-STD 129N and shall include but not limited to the following markings (1) MDNS item, name and nomenclature; (2) unique serial number; (3) Manufacturer; (4) Contract Number, (5) Warranty Expiration date; and (6) Part Number with revision level.